

Abstract of the Disclosure

A substrate 9 is carried by a carry system in sequence, via a direction-altering chamber 8 to which a plurality of vacuum chambers comprising processing chambers 21 to 24 are hermetically-connected in the perimeter, to the plurality of processing chambers 21 to 24. The carry system carries the substrate 9 horizontally by moving, using a horizontal moving mechanism, a substrate holder 92 which holds two substrate 9 upright in such a way that the plate surface thereof forms a holding angle to the horizontal of between  $45^{\circ}$  or more and  $90^{\circ}$  or less. The direction-altering chamber 8 includes a direction altering mechanism 80 that alters the direction of movement by the horizontal movement mechanism. The direction altering mechanism 80 alters the direction of movement by rotating the substrate holder 92 and the horizontal movement mechanism about the vertical rotating axis coincident with the center axis of the direction-altering chamber 8.